

LISTING OF CLAIMS:

1. (Currently amended) A flip chip bonding method for mounting a semiconductor element on a wiring board comprising steps of:

C/ applying a vacuum to the semiconductor element through an ultrasonic bonding head to fixedly attach the semiconductor element to the ultrasonic bonding head; and

applying a pressure and heat to solder bumps, formed on both or one of a connecting pad of the semiconductor element or a connecting pad of the wiring board for connecting the solder bumps under a state that the solder bumps are in contact, heated to a temperature more than the fusing point of the solder, and fused while the ultrasonic bonding head is moved in a plurality of directions or along a circular locus,

wherein the step of connecting the solder bumps is performed by a device in which an inactive atmosphere or a reducing atmosphere is formed.

2. (Cancelled) /

C2 3. (Currently Amended) A flip chip bonding method for mounting a semiconductor element on a wiring board comprising steps of:

applying a vacuum to the semiconductor element through an ultrasonic bonding head to fixedly attach the semiconductor element to the ultrasonic bonding head; and

applying a pressure and heat to solder bumps, formed on both or one of a connecting pad of the semiconductor element or a connecting pad of the wiring board for connecting the solder bumps under a state that the solder bumps are in contact, heated to a temperature more than the fusing point of the solder, and fused while the ultrasonic bonding head is moved along a circular locus.

4. (Cancelled)